

Title (en)
Semiconductor device having a multi-layered wire structure

Title (de)
Halbleiteranordnung mit einer Mehrschichtleitungsstruktur

Title (fr)
Dispositif semi-conducteur comprenant une structure conductrice à multi-couche

Publication
EP 0788160 A3 19990616 (EN)

Application
EP 97101733 A 19970204

Priority
JP 1888796 A 19960205

Abstract (en)
[origin: EP0788160A2] After forming a first wire on a first interlayer insulation film, a second interlayer insulation film is formed and planarized, to thereby form a via hole. At this stage, the via hole is formed off the first wire. Next, after making an exposed edge and an exposed side wall of the first wire slanted surfaces, a second wire is formed with or without a conductive film buried within the via hole. Since the side wall of the first wire is a slanted surface in this manner, it is possible to completely bury a wire material of the second wire or the conductive film within the via hole, and therefore, it is possible to ensure electric conduction all over the slanted surfaces of the first wire. As a result, even if the via hole which connects the first wire in a lower layer and the second wire in an upper layer is formed off the first wire, an increase in a wire resistance in the via hole is prevented. <IMAGE>

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H01L 23/522

IPC 8 full level
C23F 4/00 (2006.01); **H01L 21/28** (2006.01); **H01L 21/302** (2006.01); **H01L 21/3065** (2006.01); **H01L 21/768** (2006.01); **H01L 23/522** (2006.01); **H01L 23/532** (2006.01)

CPC (source: EP KR US)
H01L 21/76804 (2013.01 - EP US); **H01L 21/76844** (2013.01 - EP US); **H01L 23/5226** (2013.01 - EP US); **H01L 23/53219** (2013.01 - EP US); **H01L 29/768** (2013.01 - KR); **H01L 2924/0002** (2013.01 - EP US)

C-Set (source: EP US)
H01L 2924/0002 + H01L 2924/00

Citation (search report)
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• [A] US 5633197 A 19970527 - LUR WATER [TW], et al
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• [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 121 (E - 732) 24 March 1989 (1989-03-24)
• [A] PATENT ABSTRACTS OF JAPAN vol. 010, no. 179 (E - 414) 24 June 1986 (1986-06-24)
• [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 509 (E - 846) 15 November 1989 (1989-11-15)
• [A] PATENT ABSTRACTS OF JAPAN vol. 004, no. 112 (E - 021) 12 August 1980 (1980-08-12)

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DOCDB simple family (application)
EP 97101733 A 19970204; JP 1888796 A 19960205; KR 19970003357 A 19970204; TW 86101227 A 19970203; US 79542797 A 19970205